Leadership in Embedded Security

Breakout 3 - Smart Homes/IoT
Key Challenges in the Application Area

1. Programming and maintenance by homeowners with diverse skill levels.
2. Balancing security against the demands of integration and interoperability.
3. Enabling user understanding and control of information flows from the home.
4. Addressing complexity that invites side channels and malware.
Key Trends in the Application Area

1. Post-WIMP interfaces. (Windows Icons Menus Pointers)
2. Increased multi-vendor interoperation.
3. Increased credential sharing, exposure, and remote use over the Internet.
Potential Novel Solutions in the Application Area

1. Develop smart home platforms that support and promote secure design and integration.
2. Develop Privacy Enhancing Technologies (PETs) suited to home IoT use. Design a privacy dashboard.
3. Model and secure the full lifecycle of IoT devices.